WHAT IS CLAIMED IS:

1. An image processing apparatus comprising:

an edge detecting unit which identifies an area of given image data as a gradation sequence area and a character/line art area and which outputs edge information of the character/line art on the basis of this identification result;

a level converting unit which generates a strength modulation signal in order to convert a level of said image data into a value different for each area on the basis of the edge information from said edge detecting unit; and

a laser driver which outputs a laser drive signal in order to form a picture dot larger than a standard size in a predetermined area detected by said edge detecting unit in response to a strength modulation signal to be supplied from said level converting unit with respect to said given image data.

2. An image processing apparatus according to claim 1, further comprising:

a pulse width modulating unit which receives said image data and which modulates this pulse width to output the image data to said laser driver.

3. An image processing apparatus according to claim 1, wherein said level converting unit generates said strength modulation signal such that the strength of the image formation of said character/line art area

identified by said edge detecting unit is larger than the strength of other area.

4. An image processing apparatus according to claim 1, wherein said level converting unit generates said strength modulation signal such that the strength of the image formation of said character/line art area identified by said edge detecting unit is larger than the strength of said halftone area.

5. An image processing apparatus comprising:

an edge detecting unit which identifies an area of given image data as a gradation sequence area and a character/line art area and which outputs edge information of the character/line art on the basis of this identification result;

a smoothing processing unit which performs smoothing processing with respect to an image of a predetermined area identified by said edge detecting unit to output;

a level converting unit which generates a strength modulation signal in order to convert a level of said image data into a value different for each area on the basis of the edge information from said edge detecting unit; and

a laser driver which outputs a laser drive signal in order to form a picture dot larger than a standard size in a predetermined area detected by said edge detecting unit in response to a strength modulation

signal to be supplied from said level converting unit with respect to the image data provided with the smoothing processing by said smoothing processing unit.

6. An image processing apparatus according to claim 5, further comprising:

a pulse width modulating unit which modulates a pulse width of the image data provided with the smoothing processing by said smoothing processing unit and which outputs the image data to said laser driver.

7. An image processing apparatus according to claim 5, further comprising:

a smoothing processing unit which performs the smoothing processing with respect to the image data of a predetermined area identified by said edge detecting unit to output.

8. An image processing apparatus according to claim 5, wherein said level converting unit increases the number of bits of an identification signal indicating the identification result of said edge detecting unit and which adds a strength modulation signal to convert a level of said image data into another value for said every area as a portion of the identification signal.

9. An image processing apparatus according to claim 5, wherein said smoothing processing unit has determining means to determine a pixel width so as to smooth its outline on the basis of peripheral pixel

information of target pixel with respect to the image of the predetermined area identified by said edge detecting unit.

10. An image processing apparatus comprising:

an edge detecting unit which identifies an area of given image data as a gradation sequence area and a character/line art area and which outputs edge information of the character/line art on the basis of this identification result;

a first level converting unit which converts a level of said image data detected as a character/line art area by said edge detecting unit so as to extend a dynamic range of said image data and which outputs said image data;

a second level converting unit which is provided with said image data whose level is converted by said first level converting unit so as to extend a dynamic range of said image data and said image data detected as a character/line art area by said edge detecting unit, and which converts levels of these image data; and

a laser driver which is provided said image data whose level is converted by said second level and which outputs a laser drive signal on the basis of these image data.

11. An image processing apparatus according to claim 10, further comprising:

a smoothing processing unit which performs smoothing processing with respect to the image data of the character/line art area identified by said edge detecting unit and which supplies said image data to said first level converting unit.

12. An image processing apparatus according to claim 10, further comprising:

a pulse width modulating unit which modulates a pulse width of said image data whose level is converted by said second level converting unit and which outputs said image data to said laser driver.

13. An image processing apparatus according to claim 11, wherein said smoothing processing unit has determining means to determine a pixel width so as to smooth its outline on the basis of peripheral pixel information of target pixel with respect to said image of the predetermined area identified by said edge detecting unit.

14. An image processing apparatus comprising:

a level converting unit which is provided with given image data and edge information thereof and which generates a strength modulation signal in order to convert a level of said image data into a value different for each area on the basis of the given image data and the edge information thereof; and

a laser driver which outputs a laser drive signal in order to form a picture dot larger than a standard

size in a predetermined area detected by said edge detecting unit corresponding to said edge information in response to the strength modulation signal to be supplied from said level converting unit with respect to said given image data.

15. An image forming apparatus comprising:

an edge detecting unit which identifies an area of given image data as a gradation sequence area and a character/line art area and which outputs edge information of the character/line art on the basis of this identification result;

a level converting unit which generates a strength modulation signal in order to convert a level of said image data into a value different for each area on the basis of the edge information from said edge detecting unit;

a laser driver which outputs a laser drive signal in order to form a picture dot larger than a standard size in a predetermined area detected by said edge detecting unit in response to the strength modulation signal to be supplied from said level converting unit with respect to said given image data; and

a laser unit which forms an image on a recording medium on the basis of said image data in response to a laser drive signal to be supplied from said laser driver.

16. An image forming apparatus comprising:

an edge detecting unit which identifies an area of given image data as a gradation sequence area and a character/line art area and which outputs edge information of the character/line art on the basis of this identification result;

a smoothing processing unit which performs smoothing processing with respect to an image of a predetermined area identified by said edge detecting unit to output;

a level converting unit which generates a strength modulation signal in order to convert a level of said image data into a value different for each area on the basis of the edge information from said edge detecting unit;

a laser driver which outputs a laser drive signal in order to form a picture dot larger than a standard size in a predetermined area detected by said edge detecting unit in response to the strength modulation signal to be supplied from said level converting unit with respect to the image data provided with the smoothing processing by said smoothing processing unit; and

a laser unit which forms an image on a recording medium on the basis of said image data in response to a laser drive signal to be supplied from said laser driver.

17. An image forming apparatus comprising:

an edge detecting unit which identifies an area of given image data as a gradation sequence area and a character/line art area and which outputs edge information of the character/line art on the basis of this identification result;

a first level converting unit which converts a level of said image data detected as a character/line art area by said edge detecting unit so as to extend a dynamic range of said image data and outputs said image data;

a second level converting unit which is provided with the image data whose level is converted so as to extend a dynamic range of said image data and said image data detected as a character/line art area by said edge detecting unit and which converts levels of these image data;

a laser driver which is provided with said image data whose level is converted by said second level converting unit and which outputs a laser drive signal on the basis of these image data; and

a laser unit which forms an image on the basis of said image data on a recording medium in response to a laser signal to be supplied by said laser driver.